



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,543	10/15/2001	Matthew M. Persohn	65857-0033 (01-AQP-275-VA)	1294
10291	7590	07/20/2004	EXAMINER	
RADER, FISHMAN & GRAUER PLLC 39533 WOODWARD AVENUE SUITE 140 BLOOMFIELD HILLS, MI 48304-0610			DUNWOODY, AARON M	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/977,543

Applicant(s)

PERSOHN ET AL.

Examiner

Aaron M Dunwoody

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-14, 16, 17 and 32-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-14, 16, 17 and 32-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3679

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-10, 12-14, 16, 17 and 32-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6186557, Funk in view of US patent 3531144, Bizilia.

In regards to claim 32, in Figure 12 below, Funk discloses a coupling assembly comprising:

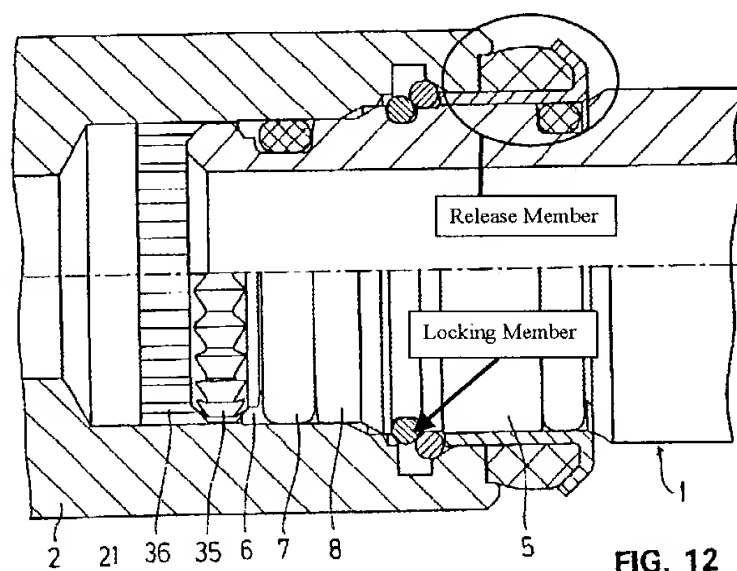
a first member (1) including a retaining formation having at least one engagement feature (35);

a second member (2) having a portion for receiving a portion of the first member, the receiving portion having at least one interior surface that includes at least one locking feature (36) configured to mate with the engagement feature of the first member to inhibit rotation of the first member relative to the second member during connection thereto; and

a locking member received in the second member. Funk does not disclose the locking member being positioned between the retaining formation and the second member when the first and second members are connected. Bizilia teaches a locking member (14) being positioned between the retaining formation

Art Unit: 3679

(7) and the second member (4) when the first (1) and second members are connected. As Funk and Bizilia solve the problem of coupling a first member to a second member, it would have been obvious to one having ordinary skill in the art at the time the invention was made to position the locking member between the retaining formation and the second member when the first and second members are connected, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.



Note, a comparison of the recited process with the prior art processes does NOT serve to resolve the issue concerning patentability of the product. *In re Fessman*, 489 F2d 742, 180 U.S.P.Q. 324 (CCPA 1974). Whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable. *In re Klug*, 333 F2d 905, 142 U.S.P.Q. 161 (CCPA 1964). In an ex parte case, product-by-process claims are not construed as being limited to the product formed by the specific process recited. *In re Hirao et al.*, 535 F2d 67, 190 U.S.P.Q. 15, see footnote 3 (CCPA 1976). Therefore, the limitation of the at least one locking

Art Unit: 3679

feature being configured to mate with the engagement feature of the first member to inhibit rotation of the first member relative to the second member during connection thereto is given little patentable weight.

In regards to claim 2, Funk discloses the engagement feature being defined by at least one protrusion in the exterior surface of the first member, the protrusion extending outward from a base reference point (any convenient point).

In regards to claim 3, Funk discloses the locking feature is defined by at least one interruption in the interior surface of the receiving portion, the interruption extending outward with respect to the base point.

In regards to claim 4, Funk discloses the engagement and locking features being received in the corresponding protrusion and interruption of the opposing member to create a radial interference.

In regards to claim 5, Funk discloses a plurality of protrusions and interruptions, the protrusions and the interruptions located on the respective members such that there is at least one orientation, wherein the members may fully engage by way of a mating of the protrusions and the interruptions.

In regards to claim 6, Funk discloses the engagement feature comprising a plurality of teeth.

In regards to claim 7, Funk discloses the locking feature comprising a plurality of grooves, the teeth of the first member configured to intermesh with the grooves of the second member.

In regards to claim 8, Bizilia discloses the engagement feature comprising a plurality of tabs.

In regards to claim 9, Bizilia discloses the locking feature comprising a plurality of slots that are configured to receive the tabs of the first member.

In regards to claim 10, Funk discloses several engagement features being substantially equidistantly spaced around the exterior surface of the first member.

In regards to claim 12, Funk discloses the retaining formation including a tapered ramp and a shoulder.

In regards to claim 13, Funk discloses an apex being disposed between the tapered ramp and the shoulder.

In regards to claim 14, Funk discloses the apex being a substantially flat surface.

In regards to claim 16, Funk discloses when the first member is sufficiently inserted into the second member, the retaining formation passes through the locking member where, upon further insertion, the locking member is expanded over the apex until it clears the apex, whereby the locking member contracts to a position between the first member and the second member to interconnect the members.

In regards to claim 17, Funk discloses the receiving portion of the second member including an inwardly facing groove for receiving therein the locking member.

In regards to claim 33, Funk discloses a release member for releasing the first member from the second member.

In regards to claim 34, Funk discloses the locking member being a split locking ring having a first end and a second end aligned in abutting relationship and having a gap therebetween.

In regards to claim 35, Funk in view of Bizilia disclose a coupling assembly, comprising:

a first fluid conveying member having an exterior surface and a retaining formation, the retaining formation including at least one engagement feature;

a second fluid conveying member having a portion for receiving a portion of the first member, the second member including at least one locking feature configured to mate with the engagement feature of the first member to substantially prevent rotation of the first member relative to the second member during connection thereto, the receiving portion including an inwardly facing groove configured to receive a locking member; and whereby, when the first member is sufficiently inserted into the second member, the exterior surface passes through the locking member where, upon further insertion the locking member is expanded over the retaining formation until it clears the retaining formation whereby, the locking member contracts to a position between the first member and the second member to interconnect the members.

In regards to claim 36, Funk in view of Bizilia disclose the retaining formation being a portion of the engagement features.

In regards to claim 37, Funk in view of Bizilia disclose the engagement feature being defined by at least one protrusion in the exterior surface of the first member, the protrusion extending outward from a base reference point.

In regards to claim 38, Funk in view of Bizilia disclose the locking feature being defined by at least one interruption in the interior surface of the receiving portion, the interruption extending outward with respect to the base point.

In regards to claim 39, Funk in view of Bizilia disclose the locking member being a split locking ling having a first end and a second end aligned in abutting relationship and having a gap therebetween.

In regards to claim 40, Funk in view of Bizilia disclose the first member including an elbow.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Funk in view of Bizilia, in further view of US patent 4280723, Moldestad.

In regards to claim Funk in view of Bizilia disclose the claimed invention except for several engagement features being non-equidistantly spaced around the exterior surface of the first member. Moldestad teaches several engagement features (38, 40, 42, 44) being non-equidistantly spaced around the exterior surface of the first member (32) so that "the male and female couplings cannot be even partially engaged, unless the first and second patterns match one another in complimentary manner"(col. 2, lines 1-3). As Moldestad relates to a safety device for use in a fluid transfer system, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate several engagement features with non-equidistantly spaced around the exterior surface of the first member so that the male and female couplings cannot be



Art Unit: 3679

even partially engaged, unless the first and second patterns match one another in complimentary manner, as taught by Moldestad.

### ***Response to Arguments***

Applicant's arguments with respect to claims 2-10 and 12-17 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues:

Unlike the claimed invention, the retaining formation in the Funk coupling assembly (i.e., conical surface (9), cylindrical surface (10) and support element (12)) does not include an engagement feature configured to mate with a locking feature in the female member to inhibit rotation of one coupling member relative to the other coupling member during connection thereto.

The examiner disagrees. It has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Therefore, Funk meets the claim limitation.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

Art Unit: 3679


action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

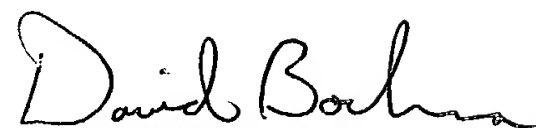
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 703-306-3436. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 703-306-5771. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

.amd 

  
David Bodres  
Patent Examiner